

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application. Applicant has canceled Claims 1, 3-11, 15-17, 19-24, 30 and 31 without prejudice and amended Claims 2, 12, 18 and 25 in the following listing, in which inserted text is underlined and deleted text is stricken through:

1. (Canceled)
2. (Currently amended) ~~The apparatus of claim 1, further comprising~~ An apparatus for processing and transmitting a signal, the apparatus comprising:

a splitter configured to split an input signal into two or more signals comprising a first signal and a second signal;

an interleaver configured to interleave the first signal to provide a first interleaved signal;

a first multiplier configured to multiply the first interleaved signal with a first code to provide a first coded signal;

a second multiplier configured to multiply the second signal with a second code to provide a second coded signal;

a transmission unit configured to transmit the first coded signal and the second coded signal; and

a delay configured to delay the second coded signal to provide a time-delayed second coded signal, wherein the transmission unit is configured to transmit the time-delayed second coded signal in lieu of the second coded signal.

3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)
11. (Canceled)

12. (Currently amended) ~~The apparatus of claim 1,~~ An apparatus for processing and transmitting a signal, the apparatus comprising:

a splitter configured to split an input signal into two or more signals comprising a first signal and a second signal;

an interleaver configured to interleave the first signal to provide a first interleaved signal;

a first multiplier configured to multiply the first interleaved signal with a first code to provide a first coded signal;

a second multiplier configured to multiply the second signal with a second code to provide a second coded signal; and

a transmission unit configured to transmit the first coded signal and the second coded signal,

wherein the two or more signals further comprise a third signal, wherein the apparatus further comprises a third multiplier configured to multiply the third signal to provide a third coded signal, and wherein the transmission unit is further configured to transmit the third coded signal.

13. (Original) The apparatus of claim 12, further comprising:

a second delay configured to delay the second coded signal to provide a time-delayed second coded signal;

a third delay configured to delay the third coded signal to provide a time-delayed third coded signal; and

wherein the transmission unit is configured to transmit the time-delayed second and third coded signals in lieu of the second and third coded signals, respectively.

14. (Original) The apparatus of claim 13, wherein the second delay is configured to delay the second coded signal for a second delay period, wherein the third delay is configured to delay the third coded signal for a third delay period, and wherein the second and third delay periods are different from each other.

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Currently amended) ~~The method of claim 17, further comprising~~ A method for processing and transmitting a signal, the method comprising:

splitting an input signal into two or more signals comprising a first signal and a second signal;

interleaving the first signal to provide a first interleaved signal;

multiplying the first interleaved signal with a first code to provide a first coded signal;

multiplying the second signal with a second code to provide a second coded signal;

transmitting the first coded signal and the second coded signal; and

delaying the second coded signal to provide a time-delayed second coded signal, wherein the time-delayed second coded signal is transmitted in lieu of the second coded signal.

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Currently amended) ~~The method of claim 17, A method for processing and transmitting a signal, the method comprising:~~

splitting an input signal into two or more signals comprising a first signal and a second signal;

interleaving the first signal to provide a first interleaved signal;

multiplying the first interleaved signal with a first code to provide a first coded signal;

multiplying the second signal with a second code to provide a second coded signal; and

transmitting the first coded signal and the second coded signal,

wherein the two or more signals further comprise a third signal,
wherein the method further comprises:

multiplying the third signal to provide a third coded signal; and
transmitting the third coded signal.

26. (Original) The method of claim 25, wherein the first, second and third coded signals are transmitted through a single antenna.

27. (Original) The method of claim 25, wherein the first, second and third coded signals are transmitted through different antennas.

28. (Currently amended) The method of claim 25, further comprising:

delaying the second coded signal for a second delay period to provide a time-delayed second coded signal;

delaying the third coded signal for a third delay period to provide a time-delayed third coded signal; and

wherein the time-delayed second and third coded signals are transmitted in lieu of the second and third ~~second~~ coded signals, respectively.

29. (Original) The method of claim 28, wherein the second delay period and the third delay period are different from each other.

30. (Canceled)

31. (Canceled)